Amendments to the Claims

This listing of claims replaces all prior versions, and listings, of claims in the application:

1.-27. (Cancelled)

28. (New) A method of inhibiting proliferation of non-leukemic, immortalized, mammalian cells which have telomerase by inhibiting such telomerase, the method comprising the step of:

administering to non-leukemic, immortalized, mammalian cells an effective amount of a non-polynucleotide inhibitor of said telomerase effective to inhibit telomerase-mediated extension of telomeres of said non-leukemic, immortalized, mammalian cells, wherein said non-polynucleotide inhibitor reduces primer extension in a telomerase activity assay.

29. (New) A pharmaceutical composition comprising a pharmaceutically acceptable buffer and an amount of a non-polynucleotide inhibitor of a mammalian telomerase, other than AZT, effective to inhibit telomerase-mediated extension of telomeres of mammalian cells which have telomerase, wherein said non-polynucleotide inhibitor reduces primer extension in a telomerase activity assay.

30. (New) A method of inhibiting proliferation of non-leukemic mammalian cancer cells which have telomerase, said method comprising:

contacting said non-leukemic mammalian cancer cells with a non-polynucleotide inhibitor of mammalian telomerase which inhibitor inhibits extension of telomeres under conditions wherein said non-polynucleotide inhibitor enters said cells and proliferation of said cells is inhibited, wherein said non-polynucleotide inhibitor reduces primer extension in a telomerase activity assay.

31. (New) A method according to claim 30 wherein said non-polynucleotide inhibitor inhibits telomerase-mediated extension of telomeres.

32. (New) A method according to claim 30 wherein said non-polynucleotide inhibitor is added to cells in culture.

33. (New) A method of inhibiting proliferation of mammalian solid tumor cells which have telomerase, said method comprising the step of:

administering to said cells an amount of a non-polynucleotide inhibitor effective to inhibit extension of telomeres by said telomerase, wherein said non-polynucleotide inhibitor reduces primer extension in a telomerase activity assay.

34. (New) A pharmaceutical composition comprising a pharmaceutically acceptable buffer and an amount of a non-polynucleotide inhibitor of mammalian telomerase, other than AZT, effective to inhibit telomerase-mediated extension of telomeres of mammalian solid tumor cells which have telomerase, wherein said non-polynucleotide inhibitor reduces primer extension in a telomerase activity assay.

35. (New) A method of inhibiting the proliferation of mammalian solid tumor cells which have telomerase, said method comprising:

contacting said cells with a non-polynucleotide inhibitor of telomerase, which non-polynucleotide inhibitor inhibits extension of telomeres by telomerase under conditions wherein said non-polynucleotide inhibitor enters said cells and proliferation of said cells is inhibited, wherein said non-polynucleotide inhibitor reduces primer extension in a telomerase activity assay.

36. (New) A method according to claim 35 wherein said non-polynucleotide inhibitor is added to cells in culture.

37. (New) A method of inhibiting proliferation of mammalian leukemic cells having telomerase, the method comprising administering to said mammalian leukemic cells an amount of a non-polynucleotide inhibitor of said telomerase, other than AZT, effective to inhibit extension of telomeres of said cells, wherein said non-polynucleotide inhibitor reduces primer extension in a telomerase activity assay.

38. (New) A method for inhibiting proliferation of immortalized mammalian cells which have telomerase, the method comprising the step of:

administering to said immortalized cells an amount of a non-polynucleotide inhibitor of telomerase, other than AZT, effective to inhibit telomerase-mediated extension of telomeres by said telomerase, wherein said non-polynucleotide inhibitor reduces primer extension in a telomerase activity assay.

39. (New) A method according to claim 38 wherein the immortalized cells are cancer cells.

40. (New) A method according to claim 39 wherein the cancer cells are solid tumor cells.

41. (New) A method according to any of claims 28, 30, 33,35, 37 and 38 wherein the mammalian cells are human cells.

42. (New) A method according to any of claims 29 and 33 wherein the mammalian telomerase is a human telomerase.

43. (New) A method of inhibiting proliferation of non-leukemic, mammalian cancer cells *in vitro* by inhibiting telomerase, the method comprising the step of:

administering to culture non-leukemic, mammalian cancer cells an amount of a non-polynucleotide inhibitor of telomerase activity effective to inhibit extension of telomeres of said cells, wherein said non-polynucleotide inhibitor reduces primer extension in a telomerase activity assay.

44. (New) A method according to claim 43 wherein said cells are human cells.

45. (New) A method according to any of claims 28, 30, 33, 35, 37, and 38 wherein said non-polynucleotide inhibitor is a nucleoside analog.

46. (New) A method according to claim 45 wherein said nucleoside analog is dideoxyguanosine.

47. (New) A method of inhibiting proliferation of mammalian cells which have telomerase activity, the method comprising:

administering an effective amount of a non-polynucleotide inhibitor of telomerase thereby inhibiting telomerase activity in said cells.

48. (New) The method of claim 47 wherein said cells are leukemic cells.

49. (New) The method of claim 47 wherein said cells are non-leukemic cells.

50. (New) The method of claim 48 wherein said cells are solid tumor cells.

51. (New) The method of claim 47 wherein said cells are human cells.

If in the opinion of the Examiner a telephone conference would expedite the prosecution of the subject application, the Examiner is encouraged to call the undersigned at (650) 838-4403.

Respectfully submitted,

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